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BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 GATEHOUSE ROAD
SUITE 100 EAST
FALLS CHURCH, VA 22315

EXAMINER
ANDREWS, LEON T

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/710,019	JIANG ET AL.
Office Action Summary	Examiner	Art Unit	
	LEON ANDREWS	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 February 2008_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-23 and 25-26_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-23 and 25- 26_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

- Applicant's Amendment filed February 28, 2008 is acknowledged.

- **Claims 11, 19, 23 and 25** were amended.

- Response to Claim Rejections is acknowledged.

- Examiner's Rejection to **Claims 1-23 and 25-26** is not withdrawn.

1.   **Claims 1-23 and 25-26** are rejected under 35 U.S.C. 102 (b) as being unpatentable by **Lin et al.** (Patent Number: 5,832,000).

Regarding Claim 1, Lin et al. discloses a method (Figs. 5, 7) of communicating data comprising:

providing a first peer (Fig. 1, base station 116) and a second peer (Fig. 1, SCU 122);

successively transmitting a first predetermined number of more than one identical instances (Fig. 4, 404, 406, 408, 410, 412, 414, 416, 418, 420) of a data block (Fig. 4, 402) with a first transmitter (Fig. 2, transmitter 202) of the first peer;

receiving at least two (Fig. 4, 404, 406) of the first predetermined number of identical instances of the data block (Fig. 4, 402) with a second receiver (Fig. 3, receiver 304) of the second peer; and

combining more than one corrupted received data blocks (combination matrix used for reconstructing the original message and information indicating the number of times the combining matrix is to be applied to the error-tolerant message for reconstructing the original

message, column 7, lines 25-29) to form a complete instance of the data block (Fig. 4, error-

tolerant message 422, column 4, line 17) at the second peer.

Regarding Claim 2, Lin et al. discloses the method of claim 1 wherein combining more than

one corrupted received data blocks (SCR's 122 received corrupted messages and unable to

reconstruct the received messages, column 3, lines 56-58) to form a complete instance of the data

block (Fig. 4, 402) at the second peer further comprises:

transmitting a response to the complete instance of the data block (SCR 122 request

retransmission of portions of corrupted messages, column 3, lines 61-62) with a second

transmitter (SCR 122 request retransmission (second transmitter), column 3, lines 61-62) of the

second peer.

Regarding Claim 3, Lin et al. discloses the method of claim 2 further comprising:

successively transmitting a second predetermined number of more than one identical

instances (SCR's 122 request significant retransmission of portions of messages, column 3, lines

61-64; SCR's requesting different portions of 5 bytes long message, column 6, lines 59-60) of

the response with the second transmitter of the second peer.

Regarding Claims 4 and 26, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and

method (Figs. 5, 7) wherein the second predetermined number is an odd number (error-tolerant

message comprises forty five elements, column 6, lines 49-51).

Regarding Claim 5, Lin et al. discloses the method of claim 1 wherein successively transmitting

a first predetermined number of more than one identical instances (Fig. 4, 404, 406, 408, 410,

412, 414, 416, 418, 420) of a data block (Fig. 4, 402) with a first transmitter (Fig. 2, transmitter

202) of the first peer further comprises:

       correctly receiving an expected response of the data block with a first receiver (controller

112 delivers the received messages to the base station 116, column 2, lines 13-15) of the first

peer; and

       disabling the successive transmission of the data block (SCR 122 to request

retransmission of portions of corrupted messages that are unrecoverable, column 3, lines 61-65)

of the first transmitter of the first peer.

Regarding Claims 6 and 15, Lin et al. discloses the transmitting peer (Fig. 1, base station 116)

and method (Figs. 5, 7) wherein the expected response is a positive acknowledgment of the data

block (error-correction algorithm is recursively applied to the original message and subsequent

by-products therefrom, until an error-tolerant message has been generated, column 4, lines 1-4).

Regarding Claims 7 and 16, Lin et al. discloses the transmitting peer (Fig. 1, base station 116)

and method (Figs. 5, 7) wherein the expected response is in a group of possible responding

messages of the data block (group of SCR 122's receiving corrupted messages cannot

successfully reconstruct the received messages, request retransmission of portions of corrupted

messages, column 3, lines 56-62).

Regarding Claim 8, Lin et al. discloses the method of claim 1 wherein said successive

transmitting and said receiving are performed over a dedicated channel (communication links

such as microwave links, column 2, lines 4-5; receiver 304 and antenna 302 are conventional RF

elements which form a receiver circuit for receiving message transmitted by the base station 116,

column 2, lines 36-39) shared only by the first and second peers.

Regarding Claims 9 and 21, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and

method (Figs. 5, 7) wherein combining more than one corrupted received data blocks comprises

taking a rounded arithmetic average for each bit (bit error rate after a first application of an error

correction algorithm is 1 bit error for every 10,000 bits, column 3, lines 26-28) of these received

data blocks.

Regarding Claims 10 and 22, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and

method (Figs. 5, 7) wherein the number of combined corrupted received data blocks is an odd

number (error-tolerant message comprises forty five elements, column 6, lines 49-51).

Regarding claims 11 and 23 (as best understood), Lin et al. discloses the receiving peer (Fig.

1, SCU 122) and method (Figs. 5, 7) wherein the second processor is capable of performing a

majority vote for each bit (combining matrixes and for each of these matrixes are 10 01 -11 10

(with a majority vote of 1), column 8, lines 34-41) among the received data blocks when

combining more than one corrupted received data blocks, wherein the majority vote means that

the combining result of a bit is equal to the value of the bit that happens more frequently than

other values of the bit in the corrupted received data blocks (second matrix has more than two

corrupted groups and the combining matrixes and for each of these matrixes are 10 01 -11 10

(with a majority vote of 1), column 8, lines 24-41).

Regarding Claims 12 and 18, Lin et al. discloses the transmitting peer and method wherein the

first predetermined number is an odd number (error-tolerant message comprises forty five

elements, column 6, lines 49-51).

Regarding Claim 13, Lin et al. discloses a transmitting peer (Fig. 1, base station 116) of a

communications system (Fig. 1, communicating system, column 1, lines 47-48) comprising:

a first antenna (Fig. 2, 201) coupled to a second antenna (Fig. 3, 302) of a receiving peer

(Fig. 1, SCU 122) via a transmission medium (communication links such as microwave links,

column 2, lines 4-5);

a first transmitter (Fig. 2, transmitter 202) electrically connected to the first antenna for

transmitting data blocks;

a first receiver (Fig. 2, caller interface for receiving messages from the PSTN 110,

column 2, lines 23-24) electrically connected to the first antenna for receiving a response from

the receiving peer (Fig. 1, SCU 122);

a first processor (Fig. 2, processing system 210) electrically connected to the first

transmitter for controlling the first transmitter to successively transmit a first predetermined

number of more than one identical instances (Fig. 4, 404, 406, 408, 410, 412, 414, 416, 418, 420) of a data block (Fig. 4, 402) of a data block (Fig. 4, 402) via the first antenna; and

a first power supply (Fig. 1, electrical block diagram of the fixed portion 102 includes the base stations 116, column 2, lines 19-20) electrically connected to the first transmitter and the first processor;

wherein the first processor is capable of detecting an expected response (SCR 122 request retransmission of portions of corrupted messages, column 3, lines 61-62) of the data block at the first receiver, and accordingly disabling the successive transmission of identical instances of the data block (information dispersal algorithm applies the error correction algorithm recursively to the original message and subsequent by-products therefrom (disabling transmission) until the problems are overcome and an error-tolerant message has been generated, columns 3 and 4, lines 67 and 1-4 respectively) at the first transmitter.

Regarding Claim 14, Lin et al. discloses the transmitting peer of claim 13 wherein the first antenna comprises two sets of antenna units (Fig. 2, RF transmitter 202 coupled to an antenna 201 which together form a transmitter circuit for transmitting received messages, column 2, lines 30-32), one electrically connected to the first transmitter and the other electrically connected to the first receiver (Fig. 3).

Regarding Claims 17 and 20, Lin et al. discloses the transmitting peer (Fig. 1, base station 116) and receiving peer (Fig. 1, SCU 122) wherein the transmission medium is a dedicated channel of

electromagnetic waves (Fig. 1, 102 controls a plurality of base stations 116 by way of communication links such as microwave links, column 2, lines 2-5).

Regarding Claim 19, Lin et al. discloses a receiving peer (Fig. 1, SCU 122) of a communications system (Fig. 1, communicating system, column 1, lines 47-48) comprising:

a second antenna (Fig. 3, 302) coupled to a first antenna (Fig. 2, 201) of a transmitting peer (Fig. 2, transmitter 202) via a transmission medium (communication links such as microwave links, column 2, lines 4-5);

a second receiver (Fig. 3, receiver 304) electrically connected to the second antenna for receiving data blocks;

a second processor (Fig. 3, processor 310) electrically connected to the second receiver for combining more than one data blocks (combination matrix used for reconstructing the original message and information indicating the number of times the combining matrix is to be applied to the error-tolerant message for reconstructing the original message, column 7, lines 25-29) received successively to form a complete instance of the data block (Fig. 4, error-tolerant message 422, column 4, line 17); and

a second power supply (Fig. 3, power switch 304) electrically connected to the second receiver and the second processor; and

a second transmitter (SCR 122 request retransmission (second transmitter), column 3, lines 61-62) for transmitting a response to the transmitting peer (SCR 122 request retransmission of portions of corrupted messages, column 3, lines 61-62) when the second processor (Fig. 3, processor 310) forms a complete instance of the data block (Fig. 4, error-tolerant message 422,

column 4, line 17).

Regarding Claim 25, Lin et al. discloses the receiving peer of claim 19 wherein the second

transmitter is capable of successively transmitting a second predetermined number (Fig. 4, 406)

of more than one identical instances (Fig. 4, 404, 406, 408, 410, 412, 414, 416, 418, 420) of the

response.

Citation of Pertinent Prior Art

2.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

         Padovani (Patent No.: US 6,411,799 B1) discloses method and apparatus for

providing ternary power control in a communication system.

         Ng (Pub. No.: US 2003/0011474 A1) discloses circuit and method for electronic

security seal.

         Muthuswamy et al. (Pub. No.: US 2004/0192290 A1) discloses communication

system with call quality indication and method therefore.

         Walton et al. (Pub. No.: US 2005/0250452 A1) discloses power efficient multi

antenna wireless device.

Response to Arguments

3.   Applicant's arguments filed February 28, 2008 have been fully considered, but they are

not persuasive.

-        In the remarks on page 9 of the amendment, applicant contends that in claim

1, Lin et al. fails to teach "successively transmitting a first predetermined

number of more than one identical instances of a data block with a first

transmitter of the first peer". Further, "receiving at least two of the first

predetermined number of identical instances of the data block with a second

receiver of the second peer".

-        The examiner respectfully disagrees and contends that Lin et al. discloses

successively transmitting a first predetermined number of more than one

identical instances (Fig. 4, 404, 406, 408, 410, 412, 414, 416, 418, 420) of a

data block (Fig. 4, 402) with a first transmitter (Fig. 2, transmitter 202) of the

first peer. Further, receiving at least two (Fig. 4, 404, 406) of the first

predetermined number of identical instances of the data block (Fig. 4, 402)

with a second receiver (Fig. 3, receiver 304) of the second peer.

-        In the remarks on pages 9 and 10 of the amendment, applicant contends that in

claim 2, Lin et al. did not perform the request of "transmitting a response to

the complete instance of the data block with a second transmitter of the

second peer".

- The examiner respectfully disagrees and contends that Lin et al. discloses
  transmitting a response to the complete instance of the data block (SCR 122
  request retransmission of portions of corrupted messages, column 3, lines 61-
  62) with a second transmitter (SCR 122 request retransmission (second
  transmitter), column 3, lines 61-62).

- In remarks on page 10 of the amendment, applicant contends that in claim 3,
  Lin et al. did not perform the step of "successively transmitting a second
  predetermined number of more than one identical instances of the response
  with the second transmitter of the second peer".

- The examiner respectfully contends that Lin et al. discloses successively
  transmitting a second predetermined number of more than one identical
  instances (SCR's 122 request significant retransmission of portions of
  messages, column 3, lines 61-64; SCR's requesting different portions of 5
  bytes long message, column 6, lines 59-60) of the response with the second
  transmitter of the second peer.

- In remarks on pages 10 and 11 of the amendment, applicant contends that in
  claim 13, Lin et al. does not teach or disclose or suggest the claimed features
  of "a first receiver electrically connected to the first antenna for receiving a
  response from the receiving peer". Further, "a first processor electrically
  connected to the first transmitter for controlling the first transmitter to

successively transmit a first predetermined number of more than one identical

instances of a data block via the first antenna". And again, "wherein the first

processor is capable of detecting an expected response of the data block at the

first receiver, and accordingly disabling the successive transmission of

identical instances of the data block at the first transmitter".

-       The examiner respectfully contends that Lin et al. discloses a first receiver

(Fig. 2, caller interface for receiving messages from the PSTN 110, column 2,

lines 23-24) electrically connected to the first antenna for receiving a response

from the receiving peer (Fig. 1, SCU 122). Further, a first processor (Fig. 2,

processing system 210) electrically connected to the first transmitter for

controlling the first transmitter to successively transmit a first predetermined

number of more than one identical instances (Fig. 4, 404, 406, 408, 410, 412,

414, 416, 418, 420) of a data block (Fig. 4, 402) of a data block (Fig. 4, 402)

via the first antenna. And, wherein the first processor is capable of detecting

an expected response (SCR 122 request retransmission of portions of

corrupted messages, column 3, lines 61-62) of the data block at the first

receiver, and accordingly disabling the successive transmission of identical

instances of the data block (information dispersal algorithm applies the error

correction algorithm recursively to the original message and subsequent by-

products therefrom (disabling transmission) until the problems are overcome

and an error-tolerant message has been generated, columns 3 and 4, lines 67

and 1-4 respectively) at the first transmitter.

- In remarks on pages 11 and 12 of the amendment, applicant contends that in claim 19, Lin et al. does not teach or suggest transmitting a response to the transmitting peer in the claimed feature "a second transmitter for transmitting a response to the transmitting peer when the second processor forms a complete instance of the data block"

- The examiner respectfully disagrees and contends that Lin et al. discloses a second transmitter (SCR 122 request retransmission (second transmitter), column 3, lines 61-62) for transmitting a response to the transmitting peer (SCR 122 request retransmission of portions of corrupted messages, column 3, lines 61-62) when the second processor (Fig. 3, processor 310) forms a complete instance of the data block (Fig. 4, error-tolerant message 422, column 4, line 17).

- In remarks on pages 12 and 13 of the amendment, applicant contends that in claim 25, Lin et al. does not teach or suggest the features of "the second transmitter is capable of successively transmitting a second predetermined number of more than one identical instances of the response". Further, applicant contends that since Lin et al. fails to teach every limitation of the independent claims 1, 13 and 19 or their dependent claims, reconsideration and withdrawal of the rejection under 35 U.S.C. 102 is requested and to send the application to issue.

-        The examiner respectfully disagrees and contends that Lin et al. discloses the

         second transmitter is capable of successively transmitting a second

         predetermined number (Fig. 4, 406) of more than one identical instances (Fig.

         4, 404, 406, 408, 410, 412, 414, 416, 418, 420) of the response. Further, Lin

         et al. taught the limitations of independent claims 1, 13 and 19 and their

         dependent claims. Thus, the rejection under 35 U.S.C 102 will not be

         withdrawn or the application sent to issue.

Conclusion

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Andrews whose telephone number is (571) 270-1801. The examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rao S. Seema can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Seema S. Rao/

Supervisory Patent Examiner, Art Unit 2616

LA/la
November 16, 2007